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1992

Environmental
assessment, F 83-
1(10)23, Lake
Inez-North, 8.4
miles in Missoula
County

Finding of No Significant Impact and Environmental Assessment

F 83-1 (10)23
Lake Inez - North
Missoula County, Montana

(P.M.S. Control #1235)

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Submitted Pursuant to
49 U.S.C. 4332 (2) (c)

and Sections 2-3-104, 75-1-201, MCA

by the

U.S. Department of Transportation
Federal Highway Administration, Region 8

and the

State of Montana
Department of Transportation
Highways Division – Engineering

February 1992

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FINDING OF NO SIGNIFICANT IMPACT

FOR

F 83-1(10)23

LAKE INEZ - NORTH

THE FEDERAL HIGHWAY ADMINISTRATION HAS DETERMINED THAT THIS PROJECT WILL NOT HAVE ANY SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT. THIS FINDING OF NO SIGNIFICANT IMPACT IS BASED ON THE ATTACHED ENVIRONMENT ASSESSMENT AND INPUT FROM THE LOCATION AND DESIGN PUBLIC HEARING. THIS FINDING HAS BEEN INDEPENDENTLY EVALUATED BY THE FEDERAL HIGHWAY ADMINISTRATION AND DETERMINED TO ADEQUATELY AND ACCURATELY DISCUSS THE ENVIRONMENTAL ISSUES AND IMPACTS OF THE PROPOSED PROJECT AND PROVIDES SUFFICIENT EVIDENCE AND ANALYSIS FOR DETERMINING THAT AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. THE FHWA TAKES FULL RESPONSIBILITY FOR THE ACCURACY, SCOPE AND CONTENT OF THE ATTACHED ENVIRONMENTAL ASSESSMENT.

Federal Highway Administration
fo Division Administrator

Date 2-19-92

ENVIRONMENTAL ASSESSMENT

F 83-1(10)23

LAKE INEZ - NORTH

8.4 MILES
IN

MISSOULA COUNTY

This document is prepared in conformance with MEPA requirements and contains the information required for an Environmental Assessment under the provisions of ARM 18.2.237(2) and 18.2.239. It is also prepared in conformance with NEPA requirements for an Environmental Assessment under 23 CFR 771.119.

Submitted pursuant to 42 U.S.C. 4332(2)(C)
by the

U.S. Department of Transportation
Federal Highway Administration
and
Montana Department of Transportation

Submitted by: Edrie Vinson Date: 2-18-92
Montana Department of Transportation
Environmental and Hazardous Waste Bureau

Approved by: D C Lewis Date: 2-19-92
Federal Highway Administration
Division Administrator

F 83-1(10)23
LAKE INEZ - NORTH
ENVIRONMENTAL ASSESSMENT

Note to the Reviewer:
Originally this document was written in 1989 and approved for distribution January 8, 1990. It is now being resubmitted as a Supplemental EA jointly by the Montana Department of Transportation with the Forest Service as a cooperating agency.

I. PURPOSE AND NEED FOR PROPOSED ACTION

A. Description

This project is located on Montana Highway 83 (FAP 83) in Missoula County. It will begin at Milepost 23.1 [end of RTF 83-1(4)15, Seeley Lake - Inez Lake] and extend northerly for about 8.4 miles to the Lolo/Flathead National Forest boundary. It is the intent of this project to widen the existing roadway to a 28-foot wide paved surface. The project will include leveling courses, plant mix overlay and seal and cover. Approach slopes will be brought up to standards through slope flattening and pipe extensions. Surfacing thickness will be a 0.30 foot overlay. Mailbox turnouts will be provided. Roadside fill slopes will be flattened using a barn roof design (see Appendix A) or preferably a 4:1 slope where practical, whichever is narrower. Trees and obstacles will be removed to provide a clear zone of variable width in accordance with the Roadside Design Guide. Three existing concrete boxculverts will be extended. Existing guardrail will be upgraded to standards.

This project is one of five projects that have been proposed for Highway 83.

-	Clearwater Junction - North MP 0 to MP 15.5	F 83-1(9)0
-	Seeley Lake - Inez MP 15.5 to MP 23.1	Completed in 1988
-	Lake Inez - North MP 23.1 to MP 31.5	F 83-1(10)23 This project
-	Condon - North & South MP 31.5 to MP 47.8	F 83-1(11)31
-	Missoula County Line - North MP 47.8 to MP 65.1	F 83-2(3)48

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All projects will involve minor widening and overlay with removal of trees and obstacles from within the clear zone. Cumulative effects from the construction of these projects will be minimized. Wetlands lost during construction will be mitigated off-site at the Scotty Brown Bridge. Each of the remaining projects will be coordinated with Forest Service representatives in order to satisfy the objectives of each clearing plan as well as securing certain valuable trees from removal.

B. Existing Conditions

The existing highway corridor runs through heavily forested, gently rolling terrain with steep cut and fill slopes. The existing roadway within the project limits was built in 1952 under the Forest Highway Program (the northern 0.6 mile section was built in 1959) and presently has a 24-foot wide paved width. Existing fill slopes are 4:1 and steeper. The maximum existing grade is 7.00%. The seven horizontal curves not meeting 50 mph design standards have design speeds ranging from 44 to 48 mph. Two sag vertical curves have minimum stopping sight distances for 47 and 48 mph design.

C. Clearing Plan

Trees will be removed from the clear zone. The clear zone, rather than being an area of consistent width, will be based on the AASHTO Roadside Design Guide. This plan for clearing is based on a design speed of 55 mph and an average daily traffic of 1400. It would provide a variable clearing width that would depend on the cut or fill slope ratio and the degree of curve. Clearing that is done in shaded areas will provide sunlight to the roadway during winter months reducing snowpack and ice. The clearing plan has been field reviewed and agreed to by both MDT and Forest Service. A description of the barn roof design can be found attached to this document.

For "Barn Roof" slopes

See table and typical section in APPENDIX A.

For fill slopes steeper than 4:1

Straight and inside of curves - (fill height x slope rate) + 22'. Outside of curves - (fill height x slope rate) + distance from Table 1.

TABLE 1 For fill slopes 4:1 or flatter

Degree of Curve	Percent of Project	Minimum Clear Zone* Inside	Outside
Straight	81.6	22′	22′
2°00′	4.6	22′	26′
2°30′	0.9	22′	27′
3°00′	2.0	22′	28′
4°00′	2.2	22′	29′
4°30′	0.8	22′	30′
5°00′	1.6	22′	31′
6°00′	2.1	22′	33′
6°30′	0.4	22′	34′
≥7°00′	3.8	22′	35′

*Measured from edge of pavement. Clear zone may be greater if catch point is beyond 22′ minimum.

TABLE 2 For cut slopes

Degree of Curve	Percent of Project	CLEAR ZONE 2:1	3:1	4:1	5:1	6:1
Straight and Inside of all Curves	81.6	10	12	14	16	18
2°00′	4.6	12	14	16	19	21
2°30′	0.9	12	14	17	19	22
3°00′	2.0	12	15	17	20	22
4°00′	2.2	13	16	18	21	23
4°30′	0.8	13	16	19	22	24
5°00′	1.6	14	17	19	22	25
6°00′	2.1	15	17	20	23	26
6°30′	0.4	15	18	21	24	27
7°00′	3.8	15	18	21	24	27

D. **Need**

Traffic data is as follows:

1988 ADT = 770 (Present Average Daily Traffic)
1991 ADT = 820 (Letting Date)
2011 ADT = 1350 (Design Year)
DHV = 220 (Design Hourly Volumes)
T = 18.0% (Trucks - Commercial)
All Trucks = 46.0%
RVs = 5.0%

A review of the accident data for a twelve-year period indicates an accident rate of 2.49 accidents per million vehicle miles for this section of roadway. This is higher than the statewide primary average of 1.72. The accident severity rate is 1.453 compared to a state average of 1.53. The accident history for the period January 1, 1979 to December 31, 1990 is as follows: there were a total of 78 accidents, including 21 injury

accidents with 31 injuries and 3 fatal accidents with 3 fatalities. The trees closest to the edge of the road are obstacles to errant vehicles. Twenty-four percent of all accidents along this section of roadway were cars hitting trees. This occurrence of tree/vehicle accidents is about 9 times greater than the statewide average. The trees along the highway can also reduce visibility and conceal animals. Fifteen percent of all accidents were vehicle-animal collisions. An undetermined number of deer-kill accidents are not reported. The trees along the project also contribute to icy road conditions. Forty-four percent of all accidents were on days with icy/snowy roadway conditions. For all of these reasons, clearing is preferred and should reduce these occurrences.

The existing roadway does not meet all current design standards. Design features that will be upgraded by this project are: flattening of fill slopes, widening the road to 28 feet, correcting the superelevation of horizontal curves. Design standards for the fill slopes and road width will not be met by this project.

Sideslopes will be flattened to at least 4:1. In areas of a high roadway fill where a 4:1 slope would not be practical, a modified barn roof slope design would be utilized. This design consists of a 10:1 slope from the edge of pavement to the edge of the clear zone where the slope changes to a 2:1.

The modified barn roof slope will reduce the width of the road base and construction limits which will require less tree clearing or wetland filling.

Additional right-of-way or construction permits will be obtained to allow additional slope flattening, or the applicable road section will be guardrailed.

The surfacing needs improvement to make it better riding and easier to maintain. Currently the surface is very rough due to road patches and damaged pavement. It is seriously deteriorated to the point where it requires extensive maintenance and is becoming rougher.

From a safety standpoint, this section of roadway will be improved by the overlay of the riding surface and the widening of the roadway.

Clearing is preferred for safety reasons. The trees closest to the edge of the road are roadside hazards. During winter months, trees cast shadows which contribute to icy conditions. Visibility can also be reduced by trees. In areas where trees crowd the inside of a curve, passing sight distance is reduced.

E. Issues

An informational hearing was held on January 31, 1991 in the Seeley Lake Community Hall. Forty-six people attended. Throughout the audience participation period, many comments and questions focused on the differences in quality, durability, costs, and safety between the overlay and reconstruction and also some concern over the time when the project could begin. Most were hoping the project could begin in 1991.

Of those expressing an opinion at the hearing:

- 2 were for the overlay only
- 3 were for more safety; overlay & flatten curves
- 4 were for reconstruction, but would settle for widening with overlay and curve reconstruction.

Most did not feel that a bikepath was vital and thought it could be built independently of the project.

Twenty-two (22) letters and comment sheets were received:

- 7 were for overlay and minimal clearing
- 9 were for overlay, curve flattening, and clearing
- 3 were for reconstruction, but said overlay and curve flattening would help
- 3 were for reconstruction as best long-term solution

On January 10, 1991 a public forum was sponsored by the Scenic Highway 83 Association. The meeting, hosted by Al Cluck, was well attended.

The public comment ranged from the concern for safety to the need to maintain the scenic qualities. The general attitude of the group was that it was important to save both lives and trees.

Scenic 83 is concerned with these issues:

1) Maintaining a safe and adequate driving surface.

2) Maintaining the scenic qualities along the corridor, as well as the distant vistas.
3) Saving the last big ponderosa and western larch trees wherever possible.
4) Reducing auto/animal collisions.
5) Establishing a sign system.
6) Finding solutions to power line problems, while preserving large trees and scenery.
7) Maintaining grizzly bear and other wildlife corridors.
8) Providing for tourism opportunities like pullouts and rest areas.
9) Cooperating and communicating with land managers, the Highway Department, utilities, and the public to maintain the scenic qualities of the valley and Highway 83, while providing for safety.
10) Providing a forum for public involvement on issues concerning Highway 83.

II. ALTERNATIVES CONSIDERED

Since the existing highway corridor is a long established route effectively serving the local residents as well as tourist traffic, it is felt that there are no location alternates that would have any advantage over the existing highway corridor for this project.

A. No Build Alternative

One alternative considered for this project was the "no build" or "do nothing" alternative which would leave the roadway in its present condition. This would result in no activities beyond the continued routine maintenance of the existing facility. This alternate would not provide a facility capable of handling the existing or projected traffic volumes, reduce high maintenance costs nor enhance safety for this stretch of roadway.

Effects

This alternative would result in minimal effects to the environment. Not widening the road or flattening slopes would allow the roadside to remain as it exists. Maintenance costs and traffic accidents would remain high.

B. Preferred Alternative

The preferred alternative will widen the road to 28 feet, flatten slopes to 4:1 or by modified barn roof, and remove obstacles from the clear zone. (See description on page 1.)

The effects of the preferred alternative are examined in Part III, Environment and Effects. The design techniques that will minimize impacts include guardrailing to avoid wetlands and allow trees in some locations to remain in place and the use of a modified barn roof slope design that will be used where a 4:1 slope is too wide. These design techniques were a modification to this alternative in response to environmental concerns.

C. Total Reconstruction

This alternative would reconstruct the entire roadway to a 36-foot width. Horizontal and vertical alignment would be corrected to current design standards. These same actions that would improve safety, would also increase the need for additional right-of-way.

Effects

Total reconstruction is estimated to cost about 2.2 times as much as the preferred alternative. Also, the project would require more time to complete. Additional clearing and filling of wetlands would cause greater environmental impacts.

D. Partial Reconstruction

This alternative would reconstruct the eight sharpest horizontal curves and eight vertical curves to meet 55 mph design standards. The remainder of the project would be overlay and widen.

Effects

Safety would be improved, but this alternative could also have impacts nearly as great as the Total Reconstruction Alternative.

This alternative is estimated to cost about 1.8 times as much as the preferred alternative.

E. Bikepath on Shoulder

This alternative would combine an additional lane on one of the shoulders of the roadway to accommodate northbound and southbound bicycle traffic. The 8-foot wide lane could be combined with either of the other construction alternatives.

Effects

This alternative would increase the construction limits which would result in greater impacts due to clearing and filling due to slope flattening. Also, the additional cost is estimated to be a 33% increase to the preferred alternative.

F. **Bikepath Separate from Highway**
This alternative would provide an 8-foot wide bikepath off the roadway. The path would accommodate northbound and southbound bicycle traffic and could be added to any of the other construction alternatives.

Effects
The effects of a separated bikepath would be even greater than for the bike lane along the shoulder of the highway. The additional cost for this alternative is estimated to be a 57% increase to the preferred alternative.

Alternatives C, D, E, and F have been eliminated from further consideration for the following reasons.

- higher additional cost
- greater wetlands impacts
- additional clearing would be required

Also, for Alternatives E and F, the public said that a bikepath is something that could always be added at any time after construction.

III. ENVIRONMENT AND EFFECTS

The project basically involves the upgrading and widening of a deteriorated existing facility to meet current and anticipated travel needs. The relationship between the local short-term uses of man's environment and maintenance and enhancement of long-term productivity has been considered as noted below. There will be some short-term uses of the environment during construction of the project, however, we expect them to be insignificant.

A. Social and Economic

Existing Environment
The area surrounding the highway is mostly Forest Service land and is sparsely inhabited.

The highway corridor is used by tourists and visitors to the Glacier Park and Flathead Lake area. Logging companies, Forest Service, and other state agencies and residents use the highway to access adjacent lands. Logging and commercial truck traffic is relatively high.

Effects of Preferred Alternative
The major effect of this project is the improvement of the highway facility. Access to public services

and facilities will be improved. No residents or businesses will be relocated.

Effect of No-Build Alternative

The existing facility would provide inadequate service of future needs.

B. Land Use

Existing Environment

Current land use within the project limits is for recreation on Forest Service lands and timber cutting on company lands. Clearcut areas adjacent to the highway are evidence of the lands use by timber companies. Presently, none of the land is being used as farmland. The existing highway is one of the most prominent and important uses of the land.

Effects for Preferred Alternative

No change in the land use is expected. Right-of-Way and easement widths will need to be increased in some areas. New right-of-way will be purchased. Construction permits will be used. Powerline relocation will effect 7 poles, none of which are on Forest Service land. Underground telephone cables will be moved at 12 locations near culverts or digouts.

Effects of No-Build Alternative

No change is expected.

C. Floodplain

Existing Environment

This project crosses the Clearwater River north of Rainy Lake and three other smaller drainages. The project also parallels Bertha Creek for about a mile.

Effects of Preferred Alternative

No longitudinal floodplain encroachments exist or are anticipated with the proposed roadway widening except along Bertha Creek where slope flattening may cause some very minor longitudinal floodplain encroachments. These areas will be evaluated for erosion potential during project design. The floodplain for these parts of the Clearwater River and Bertha Creek have not been delineated by the Flood Insurance Program and no floodplain permit will be required. No unusual hydraulics problems are anticipated on this project. The Department of State Lands has not yet designated this part of the Clearwater River as navigable, so no permit is

required for construction encroachments below the low water mark.

Effects of No-Build Alternative
This alternative would have no effect on floodplains.

D. Water Quality

Existing Environment
This project crosses the Clearwater River north of Rainy Lake and three other smaller drainages. The project also parallels Bertha Creek for about a mile.

Effects of Preferred Alternative
A minor temporary increase in sedimentation is expected during the actual construction process. Where there are existing concrete box culverts, some work within the channel may be necessary to enhance fish passage.

Along Rainy Lake, Lake Alva and Lake Inez the 2:1 slopes of the modified barn roof will be protected by an erosion control blanket and reseeded. A permanent sediment control berm will be placed at the toe of the fill. During construction, a temporary silt fence will be used as an interim sediment control device. Also, the disturbed soil on open cut slopes will be revegetated.

The contractor will be required to exercise every reasonable precaution throughout construction to prevent pollution of all waters located in the project vicinity. The contractor will also be required to meet the requirements of the applicable regulations of the Montana Department of Fish, Wildlife and Parks, Department of Health and Environmental Sciences, and other local, state or federal regulations for the prevention or abatement of water pollution. These include the applicable regulations under the Federal Clean Water Act of 1977. The controls of non-point source pollution will be implemented as directed under the Water Quality Act of 1987. This includes following all the permitting requirements and application of the current best management practices as specified in the Montana Environmental Policy Act. There should be no long-term effects on water quality resulting from the project.

Effects of No-Build Alternative
The effects on water quality would not change.

E. Air Quality

Existing Environment
The project is not located in an air quality non-attainment area.

Effects of Preferred Alternative
Exhaust emissions will not be increased by this project. The improved traffic flow provided by this project will tend to offset the potential increase in exhaust emissions which would therefore have a long-term beneficial effect on air quality.

The project is not in conflict with the State's Implementation Plan for achieving National Ambient Air Quality Standards.

Effects of No-Build Alternative
The no-build alternative would not have any construction related effects. However, the unimproved traffic flow would have greater exhaust emissions than the preferred alternative.

F. Historical and Archaeological

Existing Environment
No new sites were located during the cultural resources survey of this project.

Effects of Preferred Alternative
This project does not affect any historical or archaeological sites. Two previously recorded sites do not appear to be eligible for listing on the National Register of Historic Places based on the results of subsurface testing. Coordination with SHPO was completed and they concurred with the finding of no affect to historic properties. If sites are found during construction, the MDT will comply with 36 CFR 800 dealing with late discovery of archaeological sites.

Effects of No-Build Alternative
There would be no affect on any historical or archaeological sites.

G. Wetlands

Existing Environment
There is approximately one acre of wetland-type area near MP 30.3. Numerous other small wetland areas exist at pipe crossings.

Effects of Preferred Alternative
The roadside wetland at MP 30.3 will not be filled, instead it will be avoided by guardrailing. At the

wetland areas south of Rainy Lake, Lake Inez and Lake Alva impacts will be minimized by using a barn roof slope, which will be modified to pull in the toe of the slope 8 feet. Rock will be placed at the toe of the slope and jute matting will be placed on the slope to minimize sediment. Temporary erosion control measures will be used to stabilize the soils until vegetation is established. The wetland area by Summit Lake will avoided by using guardrail. The wetland south of Rainy Lake will be minimally impacted by using a reduced barn roof design with riprap at the toe of fill.

Since there is no practicable alternative to the proposed construction in the above wetland-type areas then the proposed construction will include all practicable measures to minimize harm to wetlands, in compliance with the Interagency Memorandum of Understanding. As mitigation for the 0.24 acres of unavoidable wetland impacts, new wetland areas will be constructed off-site since no opportunities are present on-site. The feasibility of constructing new wetland off-site near the Scotty Brown Bridge was investigated with Powell county. The 14 acres that will be created just south of the Scotty Brown Bridge would replace the lost values associated with this project. A Wetland Finding has been prepared for this project and can be found in Appendix B.

Effects of No-Build Alternative

This alternative would not effect any wetlands.

H. Scenic Quality

Existing Environment

The Highway 83 corridor is a scenic area that is unique in that it is one of the few non-park highways where big trees grow so close to the road. The Highway 83 corridor contains unique visual resources which include views of old growth larch and ponderosa pine timber stands, several lakes, and two scenic mountain ranges. Views of dense forest is more typical along this segment. Large trees greater than 20 inches in diameter are visible at several locations. The popularity of Highway 83 as a scenic drive is shown by its inclusion on a list of favorite roads. The list was the result of a nationwide survey by Farmers Insurance Group and appeared in its Spring 1991 publication of "Friendly Exchange."

Effects of Preferred Alternatives

The impacts of tree clearing are primarily visual. Under this project, trees would be cleared to the clear zone in accordance with the Roadside Design

Guide. No trees will be cut behind guardrailed sections (there will be 13,125 feet of new guardrail along this project). The exact number of trees to be cleared is not known. However, the roadside has been field reviewed by MDT and FS representatives in order to visualize the extent of the clearing. Revegetation of slopes following construction will restore scenic quality by returning to a natural appearing landscape.

Effects of No-Build Alternative
Under this alternative the clear zone would remain as it exists.

I. Wildlife

Existing Environment
The occurrence of animal collisions is quite frequent especially involving whitetail deer because of their large population in the Clearwater and Swan drainages. The improved visibility would make it easier for motorists to avoid collisions with animals.

The common loon, a species of special concern, occurs at three sites in the project vicinity according to a data search by the Montana Natural Heritage Program. The sites, located at the north end of Rainy Lake, on an island in Lake Alva and Lake Inez will not be effected by this project.

There is approximately ½ mile of designated essential grizzly bear habitat located north of Rainy Lake (which also extends into the Swan Valley). The ½ mile distance along the highway corridor provides a grizzly crossing area between the Mission and Swan ranges. The Forest Service prepared a Biological Evaluation for the proposed project and concluded that this project is not likely to adversely affect the threatened grizzly bear.

The cumulative effects of this project and the completed Seeley Lake - Inez project will be minor. There are no known bald eagle or peregrine falcon nest territories near the project areas. Grizzly bears may occur seasonally in the area. While the area is not currently considered to be habitat essential to grizzly bear recovery, it is within the designated recovery zone.

Effects of Preferred Alternative
The FWS and FWP were contacted and requested to provide any information they had that pertained to wildlife. Their responses were used to evaluate

impacts and prepare this document. The U.S. Fish and Wildlife Service concurred that the construction of this project will not have a negative effect on any threatened or endangered species either individually or cumulatively. Using a barn roof slope design has narrowed the construction limits and lessened impacts to habitat over previous designs.

The need to maintain fish passage through existing concrete box culverts will be coordinated with MDFWP if metal pipes are inserted in the boxes.

Effects of No-Build Alternative

The no-build alternative would not effect threatened or endangered species. There could be more deer hit by cars under this alternative than with the preferred alternative.

J. Rare Plants

Existing Environment

One sensitive plant species, Dryopteris cristata (crested shield-fern), was also listed by the data search as occurring near the east shore of Summit Lake. Its distribution is limited in Montana and elsewhere because the habitats in which it occurs are rare. Any change in the hydrology of these habitats would affect the Dryopteris cristata populations.

Effects of the Preferred Alternative

Since the widening of the roadway will not effect the drainage of ditches and culverts, this project will not change the hydrology of Summit Lake, and therefore will not affect the Dryopteris cristata.

Effects of the No-Build Alternative

This alternative also would not effect rare plants.

K. Tourism and Recreation

Existing Environment

Currently the highway provides access to one developed campground and one undeveloped camping road at Lake Alva. Wildlife-viewing turnouts are provided at two locations. Scenic viewing areas are located at Summit Lake and Lake Alva.

Effects of Preferred Alternative

This project will not effect any of the existing areas mentioned above. The main effect this project will have is to provide a wider and smoother roadway that will better accommodate RV traffic. The Montana Department of Transportation

considered but rejected the idea of building a rest area along the project.

Effects of No-Build Alternative

Under this alternative, the roadway conditions would remain as they exist.

L. Noise

A traffic noise assessment has been completed for this project. Traffic noise levels calculated for the Present Year (1991) and the Design Year (2011) using existing and projected traffic volumes indicate that noise levels will not increase substantially over existing levels.

M. Construction

A temporary increase in air pollution due to dust and fumes is expected as a result of construction operations. The contractor will be required to adhere to all federal, state and local regulations to minimize this pollution. Air quality permits will be obtained from the State Air Quality Bureau for asphalt plants and crushers. Dust will be controlled by watering or other acceptable methods.

There will be an increase in noise levels during the actual construction process. This will be temporary and should occur only for the duration of construction activities.

Since the new roadway will follow the existing alignment, it will be necessary to maintain traffic on the highway during the construction period. This will disrupt the area and cause some traffic delay; however, this will be short lived and last only as long as it takes to complete the necessary work. A traffic control plan will be developed to minimize inconvenience to motorists during construction.

N. Irreversible and Irretrievable Commitments of Resources

No resources other than money, labor and road building materials will be irretrievably committed to this project. The removal of the "Big Trees" within the clear zone could also be considered an irretrievable commitment of a resource since there is a lack of adequate replacements for the existing "Big Trees". However, some clearing will allow more sunlight to other trees, encouraging replacement trees to grow.

O. Hazardous Waste

The potential for hazardous waste sites being exposed along the project was reviewed and not found to exist. The project will be accomplished primarily within the existing right-of-way and is not adjacent to any suspect businesses or operations such as landfills, dumps, service stations, chemical manufacturing facilities, etc. If a hazardous waste site is uncovered during construction, then a contingency plan will be followed as suggested by the AASHTO Task Force on Hazardous Wastes in their "Hazardous Waste Guideline for Project Development." There are no EPA superfund sites along the project.

IV. COMMENTS AND COORDINATION

There is considerable correspondence on file with the Department of Transportation documenting our coordination with other federal, state, and local officials. This correspondence is available for review at the Helena office. Among those agencies that were contacted and supplied information for this document are: Montana Department of Fish Wildlife & Parks, U.S. Fish & Wildlife Service, U.S. Forest Service and the Montana Natural Heritage Program.

An Informational Hearing was held on January 31, 1991. A Location and Design Public Hearing was held on December 4, 1991 to solicit comments on the project from the public. A summary of the hearing can be found in Appendix C. Following the receipt of comments, the Department of Transportation has prepared a separate document recommending a "Finding of No Significant Impact" (FONSI) for the project. This incorporates the Environmental Assessment, Wetland Finding and the Summary to the Public Hearing with comments and responses to environmental concerns.

Formal coordination with the Forest Service began in 1990 and has resulted in a mutual participation during the revision of this NEPA document. This document was prepared with help from the following individuals:

Bill Harper	FS Regional Office, Missoula
Lee Greer	FS Regional Office, Missoula
Ed Heist	FS Regional Office, Missoula
Anne Zimmermann	FS, District Ranger, Seeley
Bruce Allen	FS Regional Office, Missoula
Joan Hellen	Lolo NF - SO Missoula
Mike Hillis	FS Biologist, Lolo NF,Missoula
Bob Kaufman	Lolo NF - SO Missoula
Edrie Vinson	MDT Environmental Section Supervisor
Barry Brosten	MDT Environmental Section

Comments From Distribution

Following the distribution of the approved EA we received the following comments:

1) From U.S. Fish and Wildlife Service:
The question of raptor-proofing new or reconstructed powerlines should be addressed in the final document.

Response: Single and three-phase power poles will be relocated. The existing poles are not raptor-proofed and there is no history of raptor electrocutions or outages related to raptor interference on the lines. MDT has requested Missoula Electric to raptor-proof all poles needing adjustment.

2) From Environmental Quality Council:
You did not state why the Environmental Assessment is the appropriate level of review.

Response: We chose the EA as the appropriate level of review because the potential for controversy over the removal of trees from the clear zone did not suit a categorical exclusion. Originally, the significance of the impacts caused by tree cutting was not known. After further study, the extent of the clearing did not result in significant impacts therefore an EIS was not warranted.

3) From U.S. Forest Service:
a) On page 10, It is our understanding that the modified barn roof style slope fill slope was going to be used along Rainy Lake. Use of the barn roof would end the toe of the fill on the old road. If the modified barn roof is used, the fill slope should read 2:1 instead of 4:1.

Response: Yes, the barn roof slope will be used along with the silt fence and berm. These changes were made to the document.

b) On page 11, first paragraph under 'Wetlands - Preferred Alternative': The MP should read 30.3 instead of 30.5

Response: The change has been made.

c) On page 12, last sentence of the first paragraph: The location of the two wetland areas to be avoided should be disclosed.

Response:These changes have been made to the document.

d) On page 14, first paragraph: The reference to FWP should be changed to U.S. Fish and Wildlife Service since they are responsible for determining impacts to Threatened and Endangered wildlife species.

Response: The change has been made.

e) On page 16, change Howler to Hellen.

Response: The change has been made.

f) In table 2, Wetland Finding: A wetland at station 2191+75 to 2192+27 is shown on the latest copy of the drawings but is not listed on the table.

Response: That wetland as shown on the plans has 0.00 acres of loss. Only those wetlands with impacts were listed on Table 2.

Comments from the Public Hearing

Two comments from the public hearing held on December 4, 1991 as recorded in the summary:

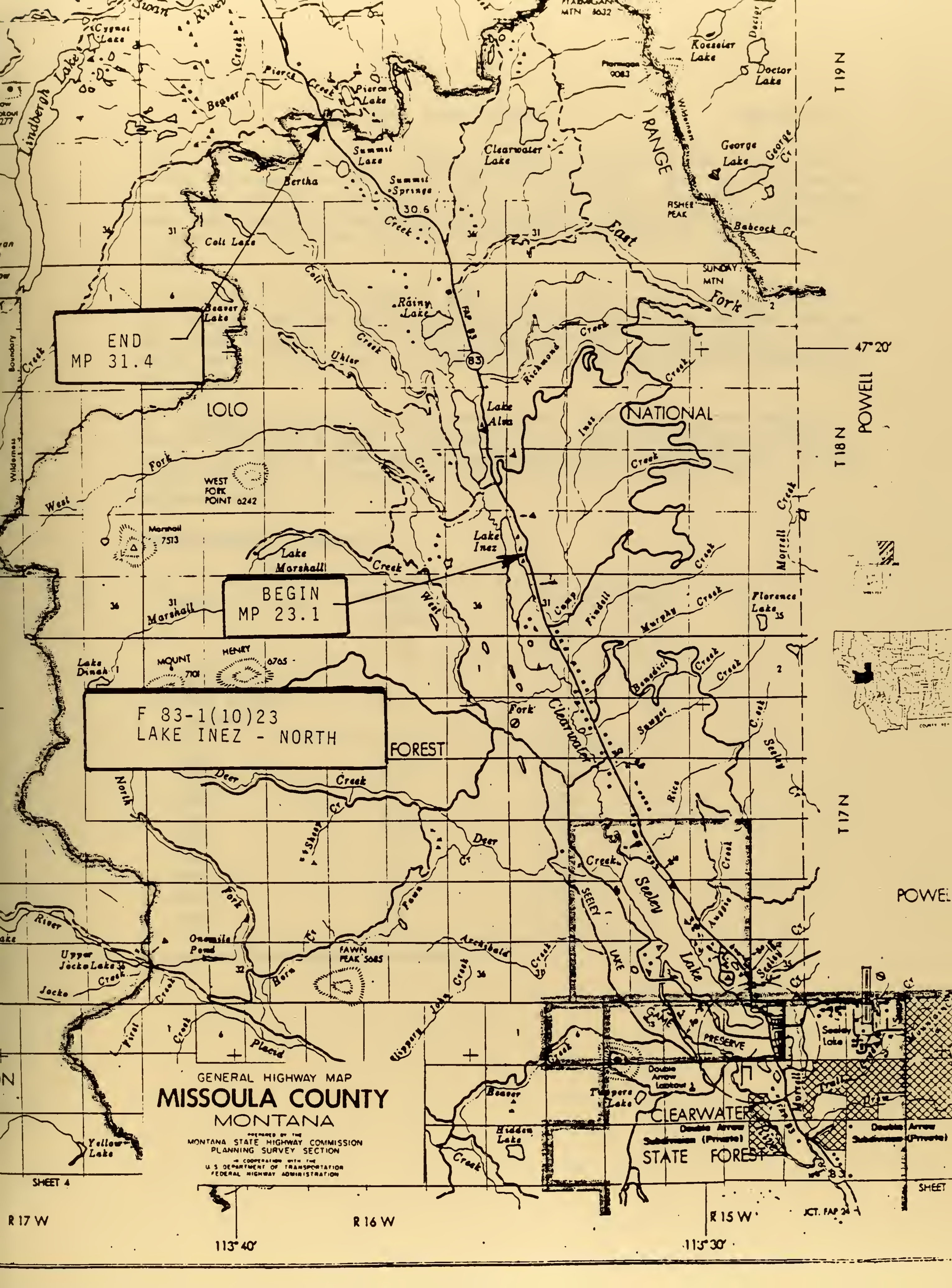
PH1) The curves, especially at milepost 29.9, should be straightened as part of this project.

Response: The option of straightening the curves was given much consideration. To add the work to the project would delay the project several months. If the condition remains a problem, a safety project could be initiated to do the straightening without a great loss of construction funds.

PH2) Will the spring near milepost 30 be affected by the project?

Response: No.

BCB:Q:ENV:106.mb


END
MP 31.4
BEGIN
MP 23.1
F 83-1(10)23
LAKE INEZ - NORTH
LOLO
NATIONAL
FOREST
CLEARWATER
STATE FOREST
Lake Alva
Lake Inez
Seeley Lake
Clearwater
Summit Lake
Summit Springs
30.6
Pierce Lake
Clearwater Lake
Rainy Lake
Colt Lake
Beaver Lake
Lake Marshall
Lake Dinah
Florence Lake
Koessler Lake
Doctor Lake
George Lake
RANGE
FISHER PEAK
SUNDAY MTN
WEST FORK POINT 6242
Marshall 7513
MOUNT 7701
HENRY 6765
FAWN PEAK 5085
Double Arrow Lookout
Double Arrow Subdivision (Private)
Placid
Upper Jocko Lake
Yellow Lake
Hidden Lake
T 19 N
T 18 N
T 17 N
POWELL
47°20'
R 17 W
R 16 W
R 15 W
113°40'
113°30'
JCT. FAP 24
SHEET 4
SHEET
GENERAL HIGHWAY MAP
MISSOULA COUNTY
MONTANA
PREPARED BY THE
MONTANA STATE HIGHWAY COMMISSION
PLANNING SURVEY SECTION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

THE BARN ROOF SLOPE

APPENDIX A

The clear zone on the Barnroof Design extends to the slope break between the 10:1 and the 2:1 slopes. The 2:1 slope is not considered to be part of the clear zone however clearing must be done to construct the slopes. Selected trees in sensitive locations can be saved if they are on the 2:1 slope.

On slopes 4:1 or flatter, the clear zone will extend down the slope for the minimum distance as indicated on the table for fill slopes. The clear zone can end on the slope if the catch point distance is greater than the specified clearzone distance.

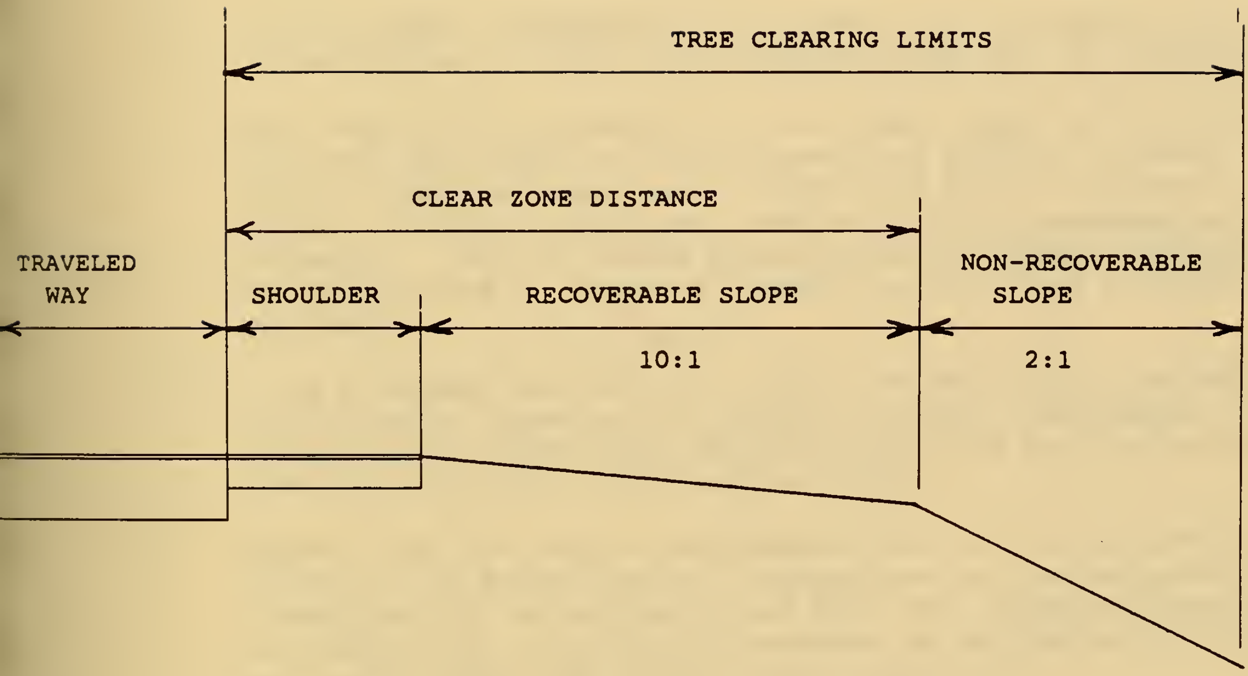
On steeper slopes (non-recoverable), the clear zone would not end on the slope. Instead, that portion of the clear zone that falls upon the steep slope must be added on at the point where a recoverable slope (4:1 or flatter) is encountered.

For barnroof slopes

Degree of Curve	Percent of Project	CLEAR ZONE*	
		10:1	
Straight and Inside of all Curves	81.6	16	
2°00′	4.6	18	
2°30′	0.9	19	
3°00′	2.0	20	
4°00′	2.2	21	
4°30′	0.8	21	
5°00′	1.6	22	
6°00′	2.1	23	
6°30′	0.4	24	
7°00′	3.8	24	

* measured from edge of pavement

THE "BARN ROOF" SLOPE



APPENDIX B

ONLY PRACTICABLE ALTERNATIVE WETLANDS FINDING
for
F 83-1(10)23
Lake Inez - North

May 15, 1991

1) This FINDING provides documentation that this proposed project will minimize the destruction, loss, or degradation of wetlands. This FINDING also documents the steps to preserve and enhance the natural and beneficial values of the wetlands affected by this proposed project. This proposed project's impacts to wetlands will be in compliance with Executive Order 11990.

2) It has been determined that there are no practicable alternatives to this proposed project due to the following:

   The "no-build" alternative has been found to be inadequate to meet the needs of the travelling public in this vicinity. This alternate does not correct the poor alignment, narrow width, unsafe conditions, and/or traffic congestion at this location. Any of these conditions have been determined to be sufficient to warrant correction by this proposed project.

3) This proposed project has been determined to include all practicable measures to minimize harm to wetlands. This determination has been made through the mitigation process described on the following page(s).

4) Based upon the above considerations, it is determined that there is no practicable alternative to the proposed new construction in wetlands and that the proposed project includes all practicable measures to minimize harm to wetlands which may result from such use.

WETLANDS FINDING
F 83-1(10)23
Lake Inez - North

Description of the Project

Wetlands and wildlife resources were inventoried in the field by the MDOH Biologist and Agronomist on 5/7/91. Wetlands were evaluated using the Cooperative Wetlands Evaluation Procedure developed as a result of the Montana Interagency Wetlands Program.

This project is located on Highway 83 near Lake Inez (note site map). The project consists of overlay and widening of the highway, utilizing the existing alignment.

Site Inventory and Descriptions

Under the Cooperative Wetlands Evaluation Procedure, (9) wetland impact sites were identified. Wetland functional values and site characteristics are summarized on the attached field evaluation form. Sites exhibiting similar characteristics were grouped together on the evaluation form. Site functional value rankings are summarized in Table 1.

These sites consist primarily of mature alder and limited willow growth. Large conifers are associated with most of the areas.

Wetlands Impacts and Mitigation

Total wetland area impacted by project fill activities involve approximately (0.24) acre (see Table 2). Due to the limited scope of the project, no alignment changes could be incorporated in the design to eliminate or minimize the wetland site impacts. Guardrails were used to eliminate impacts at some sites. This was not appropriate at all sites because of extreme maintenance problems associated with snow removal.

Due to topographical restrictions on site, on-site wetland mitigation does not appear practicable. The Forest Service and Montana Department of State Lands have been contacted to identify wetland mitigation sites in the project vicinity. If no sites are identified, a mitigation site of approximately 14 acres just south of the Scotty Brown Bridge (see attached location map) would be appropriate to replace the lost functional values associated with this project. This site may also satisfy other possible impacts throughout the Highway 83 corridor.

TABLE 1
Summary of Wetland Functional Rankings for Sites 1-9

Sites Parameter	Site Functional Ranking
Habitat Interspersion	1
Cover: water ratio	NA
Inundation frequency	2
Water flow rating	2
Relative occurrence	2
Sediment control	1
Flood control	2
Nutrient retention	1
Food chain production	2
Wildlife Habitat Value	
Waterfowl	1
Upland game birds	1
Song birds	2
Raptors/owls	1
Furbearers	1
Small mammals	1
Ungulates (deer)	1
Large Predators	1
Fisheries Habitat Value	
Montana Fishes of Special Concern	NA
Trout	NA
Other salmonids	NA
Non-salmonid game fish	NA
Rough or non-game fish	NA

TABLE 2

Wetlands

Site No.	Station to Station	Lt/Rt	Impacted Area (Acres)
1	2109+50 - 2111+00	Rt.	.04
2	2158+10 - 2159+66	Rt.	.06
3	2184+00 - 2185+00	Lt.	.03
4	2188+00 - 2189+35	Rt.	.01
5	2195+25 - 2195+75	Rt.	.01
6	2208+75 - 2209+25	Lt. & Rt.	.01
7	2217+50 - 2218+25	Rt.	.01
8	2303+00 - 2307+00	Rt.	.06
9	2306+25 - 2307+00	lt.	.01
	TOTAL		

1 ACRE = 43,560 sq. ft.

WETLAND IMPACTED - 0.24 acres

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MDOH/MDFWP
WETLAND SITE EVALUATION

Date 5/7/91

Project No. F 83-1(10)23

Project Name Lake Inez - North

County Missoula Drainage Clearwater
R. 16 W., T. 18 & T. 19 N., Section N/A

Site Location Station (on plan sheet) 2100+00 - 2310+00

Comments (route, milepost, etc.) (Sites 1 - 9)

1. Classification (from Novitski, 1979)

Hydrologic Type(s) II B/A/C 95/5
Area

Vegetative Type(s) (1) B
Dominant Species (a) Alnus
(b) Salix
(c)
(2) C
(a) Conifer
(b)
(c)
(3)
(a)
(b)
(c)

2. Adjacent Supporting Habitats (Descriptive Summary)
Wetlands (type, vegetation, area, location, condition, wildlife values)
Basic riparian fringe, considerable agricultural influence

Uplands (vegetation type, area, location, condition, land use, erosion potential, wildlife values)
Coniferous - good cover other values low

3. Relative Commonness of Wetland Type in Area common
(abundant, common, rare)

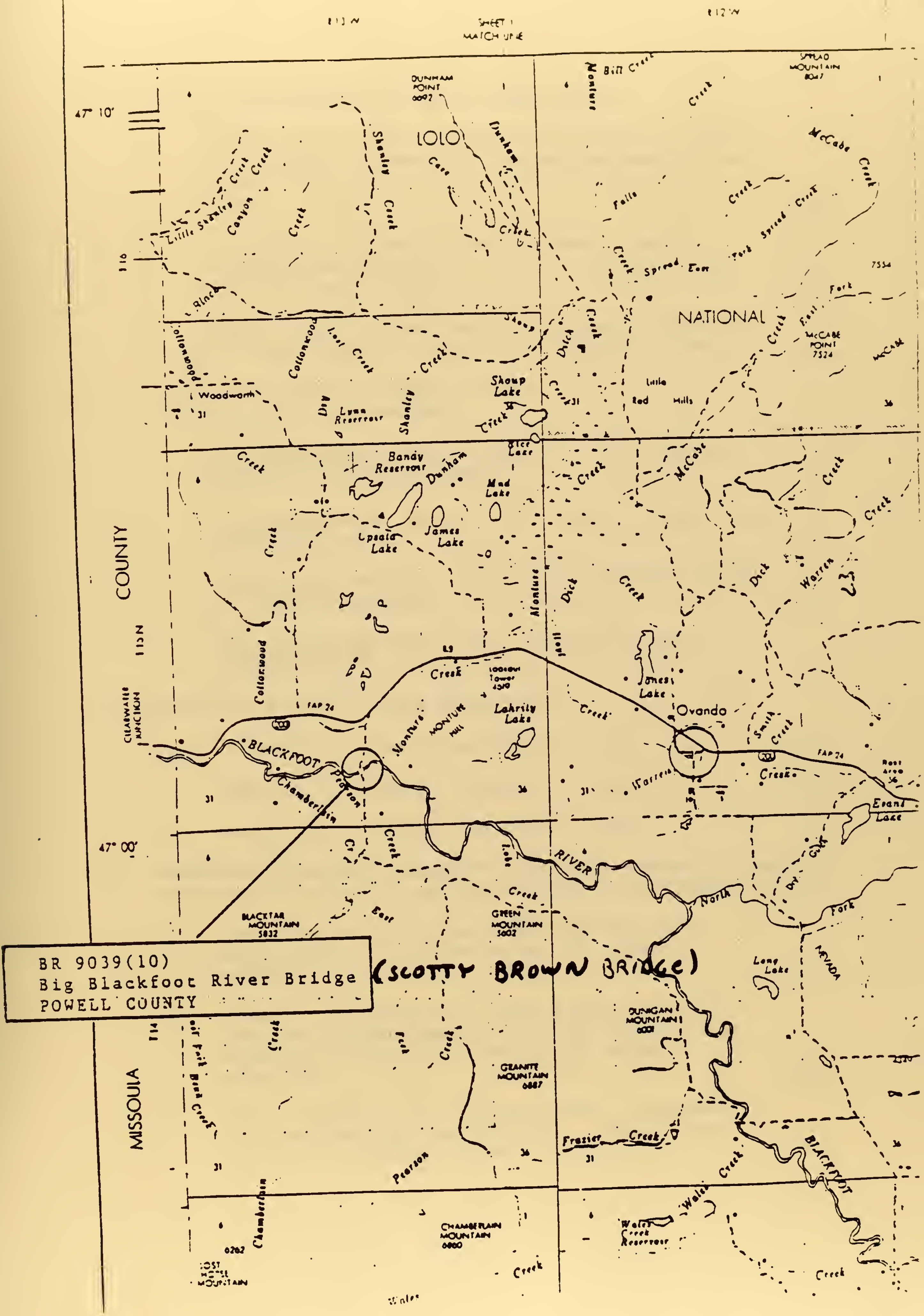
4. Degree of Habitat Interspersion
Low = 1 Moderate = 2 High = 3

5. Vegetative Cover Characteristics of Flooded Wetlands. (not applicable to non-flooded wetlands)

		Rating	N/A
a.	Cover occupies more than 95% of wetland		0.5
b.	Cover occupies 76-95% of wetland in a peripheral band		1.5
c.	Cover occupies 76-95% of wetland with scattered open water areas		2.5
d.	Cover occupies 26-75% of wetland occurring in dense patches or diffuse open stands		3.0
e.	Cover occupies 26-75% of wetland in a peripheral band		2.0
f.	Cover occupies 5-25% of wetland occurring in a peripheral band or diffuse open stands		1.0
g.	Cover occupies less than 5% of the wetland		0.5

6.	Inundation Frequency	Rating
a.	Temporary surface water or saturated soil	1
b.	Seasonally or intermittently flooded	2
c.	Semi-permanent or permanently flooded	3

7.	Sediment Control/Load Rating Criteria	Rating
a.	Wetland does not receive detectable amounts of sediment - the watercourse is relatively sediment-free and accumulations are not evident	1
b.	Wetland receives some sediment load but not enough to impact the plants or aquatic organisms using the site. The watercourse has sediment accumulations, but the water is not normally turbid	2
c.	Wetland receives heavy sediment loads that has impacted the plant/animal growth/use of the site. The watercourse has large accumulations of sediment and the water is usually turbid	3



BR 9039(10)
Big Blackfoot River Bridge
POWELL COUNTY

(SCOTTY BROWN BRIDGE)

8. Water Flow Rating Criteria (check one)

a. Most of the water flows through the wetland in distinct channels or watercourses or has little flow of surface water during the year .... ____

b. Channels of watercourses present, but a significant portion of water is sheet flow through the wetland X

c. Water flows across wetland uniformly and is not contained in channels or watercourses ____

9. Nutrient Retention Capabilities (circle one ranking)

a. Non-contiguous wetland with little accumulation of organic matter 1

b. Non-contiguous wetland with organic material accumulation 2

c. Contiguous wetland with little accumulation of organic matter 2.5

d. Contiguous wetland with organic material accumulation 3

10. Relative Flood Storage Potential

a. Section 8, line a; Section 6, line a 1

b. Section 8, line b; Section 6, line b 2

c. Section 8, line c; Section 6, line c 3

11. Relative Food Chain Support Potential (Based on percent vegetative cover and estimated relative standing crop).

a. Low (vegetative cover less than 5%; non-contiguous; no accumulation of organic matter) 1

b. Moderate (vegetative cover 6-25%; contiguous or non-contiguous to other supporting habitats; some accumulation of organic material) 2

c. High (vegetative cover 26-100%; contiguous to other supporting habitats, some accumulation of organic material) 3

12. Wildlife Habitat Values (Overall) Rating (0-3)
(Based on cover, diversity, supporting habitats, and productivity)

Evaluation Group or Species

a.	Waterfowl	1
b.	Upland Game Birds	1
c.	Songbirds	2
d.	Raptors and Others	1
e.	Furbearers	1
f.	Non-furbearing small mammals	1
g.	Large Ungulates (elk, moose, deer)	1
h.	Large Carnivores (bear, cat)	1
i.	Threatened or Endangered Species	1

Evaluate utilization by waterfowl/wildlife of wetland site for nesting, rearing young, feeding or protective cover based upon the following criteria (high, medium, low).

Use by wildlife group is significant in that loss or reduction by the wildlife use would have an adverse effect on the population of the species or wildlife in the general area (township) 3

Use by wildlife group is evident or probably and loss or reduction of the wildlife use may have an adverse effect on the local wildlife population (surrounding section[s]) 2

Use by wildlife group is low or incidental in that loss or reduction of the wildlife use would have a negligible effect on the local wildlife population . 1

Use by wildlife group is non-existent at any time during any year. NOTE: Use .3 to signify occasional use 0

13. Estimate utilization by fish for spawning, nursery, feeding, or cover.

a.	Montana fishes of special concern	N/A
b.	Trout "brookies"	
c.	Other Salmonids	
d.	Non-Salmonid Game Fish (pike, bass, walleyes)	
e.	Non-Game or Rough Fish	

Use by fish is significant in that loss or reduction of the fish use would have an adverse effect on the population of the fish in adjacent waters 3

Use by fish is evident or probably and loss or reduction of the fish use may have an adverse effect on the population of fish in the immediate vicinity but the magnitude of the reduction would be insignificant in relation to the total population of fish in adjacent waters 2

Use by fish is low or incidental in that loss or reduction of the fish use would have negligible effect on the population of fish in the immediate vicinity 1

Use by fish never present at any time in the year 0

14. Recreational Use Potential 1
2
3

15. Summary of Functional Values and Overall Site Ranking

Sediment control rating	2/3
Nutrient retention rating	1/3
Relative flood storage rating	2/3
Relative food chain support	2/3
Wildlife Habitat Values	
Highest (Evaluation Group ____)	2/3
Lowest (Evaluation Group ____)	1/3
Fisheries Habitat Values	
Highest (Evaluation Group ____) .....N/A	/3
Lowest (Evaluation Group ____)	/3
	10/18

JTR:Q:ENV:117.mb

SUMMARY OF THE
LOCATION AND DESIGN PUBLIC HEARING

File #433

F 83-1(9) & (10)
Clearwater Jct. - North
Lake Inez - North

This report is submitted in lieu of a verbatim transcript of proceedings at the Location and Design Public Hearing held in the Seeley Lake Community Hall in Seeley Lake, Montana, on December 4, 1991. The tape of the hearing is on file with the Department of Transportation's Public Hearing Office in Helena. About 40 people attended the meeting.

An Information Meeting was held on the Lake Inez-North project at Seeley Lake on January 31, 1991.

The Lake Inez-North project was presented first. Jim Weaver, District Engineer from Missoula, gave the engineering presentation. He outlined the overall planning and schedules for the jobs on the Swan Valley road, Route 83. Four (4) projects totaling about 60 miles are scheduled to start in the summer of 1992, with Lake Inez, then letting one job each of the following three years. The scope of work is to widen, clear slopes and overlay the existing roadway to provide two 12-foot driving lanes and 2-foot shoulders. Some spot reconstruction will occur where curves are to be flattened.

The Lake Inez job begins at Lake Inez and extends 8 miles northerly. Jim Weaver explained the main features of the job that have been the main concern and have been generally agreed to by the Forest Service. These include the selective clearing at curves and sheltered section, widening and flattening shoulders along the sets of sharp curves near each end of the project and limiting the shoulder clearing. Other safety enhancement work will include guardrail and mail box turnouts. Jim also explained the consideration and study given the bike lane/path facility. This was deleted because of the added effects of cost, delay and increased environmental damage.

Debbie Dils, Right-of-Way (R/W) Agent from Helena, outlined the procedures when R/W is needed. The appraisal, review then negotiations are the typical steps in the process. She also explained the availability of the relocation program and payments, emphasizing that no relocation was expected on either of these projects. Later, during the discussion, the concept of limited access was explained and that no limited access controls would be placed on these jobs.

Only two comments were made regarding the Lake Inez project. One man requested the curves, especially about milepost 29.9, be straightened as part of the project. He does not feel our proposal will help. Jim Weaver detailed the work to be done and advised that past experience has shown it should be safer, that to add this work would delay the project by several months. The engineers gave the options much consideration and if the condition remains a problem, a safety project can be initiated to do the straightening without a great loss of construction funds. The other concern was to clarify that a spring near milepost 30 will not be affected by the project.

ake Inez-N.

---

earwater
ct - North

The display boards were changed and Vaughn Anderson, of the firm of Druyvestein, Johnson and Anderson, gave the engineering presentation on the Clearwater Jct.-North project. This section is also basically an overlay and widening project with some short section of reconstruction. The new road width is generally the same as the other projects, either overlay or reconstruction. It will be two 12-foot driving lanes and 2-foot shoulders with somewhat flatter slopes, clearing and guardrail where warranted.

The change in width is proposed beginning just north of Morrell Creek as you approach the Double Arrow Ranch entrance from the south. The pavement will widen to 40-feet to allow the driving lanes to separate and accommodate an oncoming left-turn lane and an additional right lane will allow slowing to enter the Double Arrow. On the north side of the approach will be the two driving lanes, the left-turn lane for southbound traffic and an 8-foot shoulder on the right. The driving lanes will then return to parallel with 8-foot shoulders north to the Motel/Country Store. The pavement will then widen to 48 feet to allow a 14-foot left-turn center lane, two driving lanes, a 2-foot shoulder on the left and an 8-foot shoulder on the right continuing through Seeley Lake to the end of the project.

Vaughn explained how the widened shoulders will match the existing slopes of the approaches and parking areas. He noted that there will not be a separate storm system nor any curbs through town. He then went back through the project, locating the areas where some additional R/W will be needed.

Dan Bartsch, Hearings Officer, outlined the environmental document and some of the main categories that are studied, such as air and water quality, flood plain, historic and archaeological sites, and hazardous waste sites. The ready date was listed as June 1993.

The following are questions and items from the discussion period:

Several concerns were raised about the effect of the widening from the Motel/Country Store area through town. Will the existing right-of-way be enough; will the paved shoulders, especially the 8-foot side, remove any parking; will it be a smooth transmission to the ground; what will happen to the ditches; can they be filled in and will the drainage problems be helped?

Generally the project should leave the roadside improvements and services about the way they are. The drainage will work about the same. If the ditches were filled it may affect the drainage and create other problems. A blow-up photo of town showed the effect of the 8-foot shoulders on the parking spaces. Only minor construction permits are anticipated to dressup shoulders.

The speed zone signs were also discussed. Could signs be moved north and south to lengthen the zone? Jim explained the procedure that an engineering study would be needed. This would not be done until after the project.

Private concerns included perpetuation of irrigation pipes and ditches and replacement of fencing. Dan advised these would be covered in the R/W agreements.

Along the project, concerns were raised about ditches and slopes preventing "fallen rock" on the road, more leveling along the lake for better sight distance, "pull-outs" added for slow moving vehicles and ways to keep animals off the road. Slopes will be flattened and seeded; no special leveling will occur as it is in the area of the overlay typical; only the existing scenic pull-outs will be perpetuated; and experiments are still going on trying to discourage the animals.

One suggestion was made to have the rest area along this job "by the river". A sawmill representative asked when the load and speed limit would be lifted for hauling in the spring. Jim Weaver thought only after the four major jobs were complete.

Two people requested wider shoulders be provided for bikers.

The meeting closed about 9:00 p.m.

A total of 39 letters and cards were received during the comment period. Six letters addressed specific concerns and requests for such things as curb and gutter or a drain system; an underpass, driveways, move widening in town to

the west, lift load restrictions, concern with falling rock, and restrict widening to save scenery. Thirty-three letters objected to the 2-foot shoulders, they want widening to accommodate bikers.

Daniel P Bartsch

Daniel P. Bartsch, Information Officer
Public Affairs Bureau

DB:D:PAF:15.1m